Ovarian cysts in the menopause: to operate or not to operate?

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“Be not ashamed women
your privilege encloses the rest.
You are the gates of the body and
you are the gates of the soul”.

Walt Whitman, I sing the body electric. Leaves of Grass. 1855.

Since age is a factor of significant risk for ovarian cancer, the presence of a menopausal adnexal mass has been considered pragmatically an indisputable surgical indication because it is considered to have a high probability of malignancy: all tumors in women over 50 years must be surgically removed. However, since 1989, with the systematic use of transvaginal ultrasound, Grangberq et al\(^1\) observed that not all menopausal adnexal mass is a malignant lesion, making special consideration to unilocular cysts in this age group that usually are benign or functional lesions and do not require treatment because they are associated with malignancy in only 0.3% of cases.

Since then, it begins to change the behavior toward menopausal ovarian cystic lesions. According to Susan Modesitt and colleagues in women older than 50 years have been found an incidence of simple ovarian cysts of 18%, of which almost 70% resolved spontaneously, 7% persisted as a unilocular lesion and the other changed its morphology with the development of septa or papillae\(^2\); i.e., of all ovarian cysts that are diagnosed in menopausal women, only 23% would merit a histological confirmation, which is equivalent to 4 of every 100 patients with ovarian cysts. These authors consider that the incidence of ovarian cancer in cystic tumors smaller than 10 cm is very low.

According to the International Ovarian Tumor Analysis Group (IOTA)\(^3\), the characteristic of an ovarian tumor that is most associated with a benign lesion is unilocular cystic appearance. The cyst is defined sonographically as an anechoic space, with smooth thin walls, with posterior acoustic enhancement, without septation or solid component and no internal flow at color Doppler US\(^4\). If the image with these features is less than 10 cm in diameter, without septa or papillae, the risk of malignancy according to IOTA is less than 1%, which would allow a conservative management in these patients\(^3,4\).
Then, in the light of the evidence, which would then be the most appropriate conduct before a menopausal patient with a unilocular ovarian lesion? It is necessary to take into account several aspects to reach the right decision in the presence of a simple cyst in menopause. Firstly, it is important to know that the real risk of a cystic lesion, with no septa or papillae, related to a malignant lesion, would be between 0.3 and 1%. There is consensus to consider that if an ovarian lesion of this nature is less than 5 cm, it can be observed to avoid subjecting the patient to unnecessary surgery; some studies raise the margin to 7 or 10 cm, as the IOTA group. Hagan Guraslan and Keziban Dogan, published recently a study where evaluated 236 treated surgically cysts and not found, regardless of the size of the cyst, no malignant or borderline lesion. In the light of these results, it seems that rather than the size of the tumor is more important its morphology.

Secondly, it is necessary to know the dynamics of the ovarian lesion. The functional cysts, although they are more frequent in the reproductive age, can be found also in menopause in a much less proportion because of the high levels of follicle stimulating hormone (FSH) in the pituitary gland. They are also frequent in patients treated with tamoxifen because of the effect of increasing this gonadotrophin at the pituitary gland. Eventually, the majority of these cystic functional lesions disappears or remains unchanged in time as is the case of benign simple cysts.

As the resolution of ultrasound equipment increases, the morphological characterization of ovarian lesions allows to better identify the presence of thick walls or solid areas which could be related to lesions suspicious of malignancy. The morphology of a lesion in the evaluation of B-mode ultrasound with transvaginal scan allows, in the majority of cases, a diagnosis that discriminate between a benign and malignant tumor, as have shown the Simple Rules established by IOTA. Evaluation with Duplex and 3D ultrasound provide valuable information, allowing to confirm initial findings with the B-mode evaluation. If combined with CA125 measurement it allows a better evaluation whether the cyst is benign or suspicious of malignancy.

In menopausal with characteristic ultrasound benign lesions, the Society of Radiologists in Ultrasound recommended evaluation with annual ultrasound in cysts from 1 to 7 cm. In lesions greater of 7 cm advised the evaluation with a magnetic resonance or perform a surgical exploration. Other authors recommend the observation of any cystic image without regardless of the size but with a higher periodicity. Rauh-Hain et al recommend follow-up with determination of levels of CA125 and transvaginal ultrasound every 3-6 months. If during the serial observation changes occur in the sonomorphology or elevation of tumor marker levels, recommended surgical exploration; if the lesion is not modified, it is not wise to perform a potentially unnecessary surgery, especially in an age group where comorbid conditions are most prevalent and would make risky any surgical treatment.

Ultimately, a change of approach is essential: not all menopause ovarian tumors are malignant lesions, there must be clear clinical and paraclinical criteria justifying the treatment or follow-up of a unilocular cystic ovarian lesion in this age group. A simple cyst of ovary on menopause is not an emergency, requires to be initially conservatively and serially evaluated, and indicate the surgical
resolution if it shows changes that require histological evaluation. A set and unhurried medical decision is usually a wise decision.

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References:

1. Granberq S et al. Macroscopic characterization of ovarian tumors and the relation to the histological diagnosis: criteria to be used for ultrasound evaluation. Gynecol Oncol 1989;35(2):139